

# Notice of Allowability

Application No.

10/670,803

Examiner

Vincent E. Kovalick

Applicant(s)

KITAZAWA ET AL.

Art Unit

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## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to applicant's amendment dated 3/29/07.
2. ☒ The allowed claim(s) is/are 1,3-26,30-34 and 37-58 (re-numbered 1-52).
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All b) ☐ Some\* c) ☐ None of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment***

1. This Office Action is in response to Applicant's Amendment dated March 29, 2007 in response to USPTO Office Action dated December 29, 2006.

The cancellation of claims 2, 27-29 and 35-36; the amendments to claims 1, 3, 5-10, 14-18, 25-26, 30-34 and 46 and the addition of new claims 47-58 are sufficient to place the application in a condition for allowance as set forth hereinbelow.

## **EXAMINER'S AMENDMENT**

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

3. Authorization for this examiner's amendment was given in a telephone interview with Applicant's Attorney, Mr. Grant K. Rowan, Reg. No. 41,278 in a telecon on May 1, 2007.

- o Claim 7, line 2; delete the expression "3 through 6" and replace with ---3-6---
- o Claim 8, line 2, delete the expression "3 through 6" and replace with ---3-6---
- o Claim 9, line 3, delete the expression "3 through 6" and replace with ---3-6---
- o Claim 16, line 2, delete the expression "13 through 15" and replace with ---13-15---
- o Claim 17, line 2, delete the expression "13 through 15" and replace with ---13-15---
- o Claim 18, line 3, delete the expression "13 through 15" and replace with ---13-15---

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- o Claim 25, line 3, delete the expression "19 through 23" and replace with ---19-23---
- o Claim 46, line 3, delete the expression "39 through 44" and replace with ---39-44---

*Allowable Subject Matter*

4. Claims 1, 3-26, 30-34 and 37-58 are allowed.
5. The following is an examiner's statement of reasons for allowance:

Relative to claim 1, the major difference between the teachings of the prior art of record Ohkubo (Pub. No. US 2003/0048351) taken with Kawashima et al. (USP 6091,203) in view of Imai (USP 6,836,067) and that of the instant invention is that said prior art of record **does not teach** an image forming apparatus wherein at the start of an image writing means, a direct current voltage is applied to organic EL elements and the image writing means is shifted to the printing state.

Regarding claim 10, the major difference between the teachings of the said prior art of record and that of the instant invention is that said prior art of record **does not teach** an image forming apparatus comprising control means that controls a direct current voltage applying means to apply a direct current and voltage, higher than a threshold voltage and lower than the voltage applied for printing, to organic EL elements during non-printing with said image carrier being moved.

Relative to claim 19, the major difference between the teachings of the said prior art of record and that of the instant invention is that said prior art of record **does not teach** an image forming apparatus comprising: an image writing means employing organic EL elements and a control unit for said organic EL elements, wherein said control unit applies a voltage of opposite

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bias polarity i.e. a voltage of a polarity opposite to that of the voltage of bias polarity for light emission (voltage of emission polarity).

Regarding claims 26 and 33, the major difference between the teachings of the said prior art of record and that of the instant invention is that said prior art of record **does not teach** an image forming apparatus wherein the organic EL elements in group(s) are controlled to be all lighted before application of the charge bias to a photoreceptor.

Regarding claim 32, the major difference between the teachings of the said prior art of record and that of the instant invention is that said prior art of record **does not teach** an image forming apparatus wherein the patch images are formed by controlling at least organic EL elements in group(s) which form the patch images to be all lighted.

Relative to claim 39, the major difference between the teachings of the said prior art of record and that of the instant invention is that said prior art of record **does not teach** an image forming apparatus comprising: an image writing means having a plurality of light emitting element lines aligned in the sub scanning direction of an image carrier, each light emitting element line being composed of a plurality of organic EL elements aligned in the main scanning direction of the image carrier and arranged two-dimensionally; and a control unit for said organic EL elements; wherein the control unit controls such that at least one organic EL element of a plural organic EL elements for forming a latent image of the same dot by means of multiple exposure is lighted at least once during the formation of the latent image of the same dot.

Relative to claim 41, the major difference between the teachings of the said prior art of record and that of the instant invention is that said prior art of record **does not teach** an image forming apparatus comprising: an image writing means having a plurality of light emitting

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element lines aligned in the sub scanning direction of an image carrier, each light emitting element line being composed of a plurality of organic EL elements aligned in the main scanning direction of the image carrier and arranged two-dimensionally; and a control unit for said organic EL elements; wherein said control unit controls such that organic EL elements of at least one of the light emitting element lines arranged in the main scanning direction are all lighted and the line to be subjected to the all-element lighting is switched at predetermined interval.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### *Conclusion*

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U. S. Patent No.	5,998,008	Shimamura et al.
Pub. No.	US 2002/0005887	Nakase et al.

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***To Respond***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vincent E. Kovalick whose telephone number is 571-272-7669.

The examiner can normally be reached on Monday-Thursday 7:30- 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 571-272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Vincent E. Kovalick  
May 2, 2007



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